



Clemas & Co Ltd

Industrial Cleaning Equipment
Sales - Hire - Service

C50 55BR Pedestrian Scrubber Dryer OPERATOR MANUAL



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Congratulations for your choice!

***FIorentini S.r.l.** thanking you for the preference to our product, would like to remind you that **FIorentini's S.r.l** production covers manufacture and marketing of industrial cleaning machines and is currently a leading company in this sector. Our tradition and competence guarantee technical quality of your choice; actually all our products are being built first quality materials through criteria that can give reliability, solidity and functionality satisfying every kind of customers. **FIorentini** has recently obtained the quality system certificate conforming to the requirements of **UNI EN ISO 9001:2000**.*

We wish therefore inviting you to contact us, unhesitatingly, for every kind of request, as technical or commercial; we'll be pleased to be at your disposal for any information you may need.

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1. GENERAL INFORMATION

1.1. SYMBOLS

	<i>This symbol is used to get the operator's attention on procedures or precautions to be followed in order to avoid damages to users or to the support</i>
	<i>This symbol is used to get the operator's attention on general information.</i>

1.2. PREMISE



***FIorentini S. r. l.** is the only owner of this manual.*

The reproduction of all or part of the manual or the transmission to third parties with mechanic or electronic devices are forbidden without a written manufacturer's authorization. This manual is supplied to the customers in one original copy when differently specified during the order.

This manual is supplied to the customer with the machine and it must be kept with it even when the machine has to be transferred.

Please, keep the manual in a safe place and for all the machine lifetime. Purchaser is responsible for showing the manual to qualified people. In case of loss ask for a duplicate to FIORENTINI Co..

FIORENTINI S.r.l. is not responsible for any kind of damages caused by people or things due to the nonobservance of the instructions of this manual.

FIORENTINI reserves the right to add at any time and without notice all the technical and commercial changes considered useful for the customer. Therefore data and information in this manual can be updated.

1.3. MANUAL CONSULTING

This manual deals exhaustively with all arguments that are necessary for an easy and safe use of the machine as it is recommended by European Directives on product safety.

Therefore we suggest to all authorized operators to read carefully this manual contacting FIORENTINI S.r.l. for any explanation. The manual has to be used every time the operator forgets a procedure or when new operators have to be trained.

For publishing reasons, pictures and drawings can look different from the reality but without arising doubts.

Special symbols and **bold type** and/or *slowing* get the attention of the reader on remarkable information in particular for safety.

The revision index is written on the left at the bottom of every page. The list of those pages that have been updated has to be found at the end of the manual.

1.4. GARANTIE

Warranty conditions are stated as below when not differently specified in the order confirmation.

OGGETTO DELLA GARANZIA

WARRANTY OBJECT

The machine has been designed and built for a long-lasting use without relevant problems. Anyway, if problems arise during the warranty period, FIORENTINI S.r.l. is engaged to repair or substitute for free those parts that are broken or damaged by defective materials, working defects or imperfect assembly. Warranty is not given for parts whose early breaking or wear and tear are due to:

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- Non-respect of instructions included in this manual;
- Breaking and/or changes made up without FIORENTINI's approval;
- Not-use of genuine spare parts;
- Interventions made up by unauthorised personnel; • Missing maintenance;
- Natural calamities.

WARRANTY CONDITIONS

The warranty is granted for 24 months since the machine delivery date. This is a single warranty term and it cannot be extended.

EXCEPTIONS

Expandable materials like brushes, squeegee blades and materials whose lifetime cannot be predetermined are not under warranty.

INTERVENTION DEMANDS

Intervention demands must be sent to FIORENTINI Service Dpt. only after a careful analysis of the problem and its causes. Following information have to be given to FIORENTINI's agent:

- Serial number you get it from the silver label stucked on the machine (§ 2.1.); • Code and position of the component taken from the spare parts list (§ 7.2.); • A detailed description of the problem and its causes.

The components considered under warranty are delivered ex works; those ones being substituted belong to FIORENTINI Co..

APPLICATION MODALITY

Defective components must be sent back to FIORENTINI S.r.l. in order to establish the anomalies causes and apply therefore the warranty. Repair and replacement under warranty will be done in FIORENTINI's workshop, by third parties or in loco. In case of repair or replacement in loco, energy sources and the use of particular equipment have to be paid by the customer himself.

GOODS TO BE RETURNED

In case of goods to be returned for warranty replacement, it is necessary to have a written acceptance from FIORENTINI technical department before sending them.

All defective parts must be carefully packed in order to avoid further damages during transport. Goods must be shipped ex-warehouse and followed by :

- **serial number of the equipment where they were installed on;**
- **item code of the defective part;**
- **detailed description of the defect and of the conditions where it happened.**

In case of defective electric or electronic goods, please return them separately from other materials, in order to help us in dividing dangerous wastegoods and recycle the (RAEE) as DER 2002/96/CEE LOW.





The machine warranty is no more available in case of the loss of the silver label.

GENERAL INFORMATION

ROLLER DELUXE 55

1.5. CONFORMITY DECLARATION

Conformity declaration is released with the machine and the user manual.

**DICHIARAZIONE CE DI
CONFORMITA'****ING. O. FIORENTINI s.r.l.**

Loc. Rombola

50030 PIANCALDOLI (FI) ITALIA**DICHIARIAMO SOTTO LA NOSTRA RESPONSABILITA'
CHE LA MACCHINA****Marca****FIORENTINI****Tipo****N° serie****Anno di costruzione 2004**

RISULTA IN CONFORMITA'
con quanto previsto dalle seguenti direttive e normative armonizzate comunitarie:

DIRETTIVA COMUNITARIA**DIRETTIVA MACCHINE****98/37/CEE**

DIRETTIVA COMPATIBILITA' ELETTROMAGNETICA

89/336/CEE

Piancaldoli

Ing. O. Fiorentini S.r.l.

Il titolare

Ing. O. Fiorentini

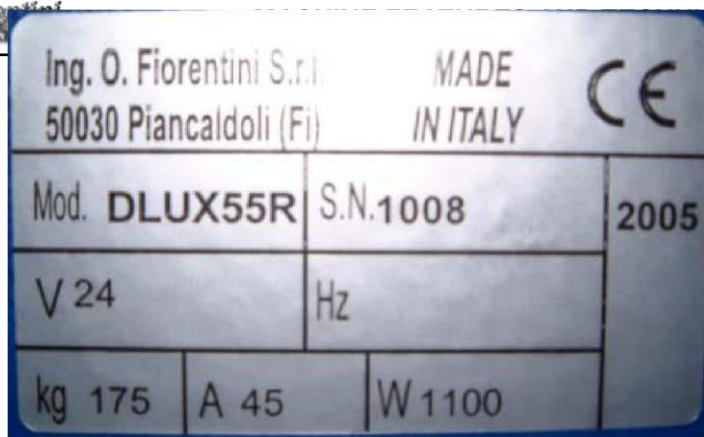
Luogo e

Firma data

2. MACHINE FEATURES AND TECHNICAL DATA

2.1. IDENTIFYING THE MACHINE

A silver label is stucked on the protection case of the steering column and clearly shows the data referring to the "CE" marking.



CAL DAT



Picture nr. 2.1



The label has never to be removed and should always be kept readable. In case of damage it is necessary to ask for a duplicate. The autoscrubber machine cannot be sold without the label.

2.2. DESCRIPTION AND COMPONENTS

The scrubber machine – DELUX55R - has been designed for the cleaning of all flat surfaces by means of washing and vacuuming of the washing water.

The electric traction system is supplied by a series of batteries which supply energy to the brushes motors, to the squeegee motor and to the suction motor.

The machine is equipped with two rotating brushes which wash the surface by means of water and detergent. Whilst the machine is running forward, the back brush (squeegee) picks the water up that is directly sucked into the recovery tank.

Thanks to the dashboard the operator can control all the machine functions and a series of LEDs shows to the operator the battery status or the errors detected by the electronic card.

The operator can control all the main machine functions and in particular:

- ⌚ Start the washing roller brushes; ⌚ Start the suction motor;
- ⌚ Start or stop the machine.

The machine frame is made of zinc-plated or stainless steel in order to avoid oxidation which could compromise the machine reliability.

The main parts of the machine are:

- ⌚ Zinc-plated steel or stainless steel frame;
- ⌚ PE-HD plastic solution tank;
- ⌚ PE-HD plastic recovery tank supplied with flexible suction piping system and drainage;
- ⌚ Series of batteries placed in the recovery tank room;
- ⌚ rotating brushes;
- ⌚ Squeegee (suction system);
- ⌚ one castor wheel;
- ⌚ two drive wheels; ⌚ driving seat.

FIORENTINI Co., taking the new CE safety rules into consideration, manufactures the machine following the CE directives about safety and health. The materials high quality, the high technology and FIORENTINI's experience guarantee the performance and the reliability of this machine .

Each machine is tested during the manufacturing process and the final check is done before the machine is shipped out.

2.3. TECHNICAL DATA

DIMENSIONS	ROLLER DE LUXE 55
LENGTH	1160 mm
BRUSHES CASE WIDTH	610 mm
HEIGHT	1040 mm
WASHING BRUSHES	N° 2 x Ø 110 mm
WASHING BRUSHES PRESSURE	25 – 45 kg
WASHING WIDTH	505 mm
SQUEEGEE WIDTH	800 mm
DRIVING POSITION	MAN AHEAD
POLYETHYLENE SOLUTION TANK	48 lt
POLYETHYLENE RECOVERY TANK	59 lt
FRONT WHEEL DIAMETER	N° 2 x Ø 160 mm
REAR WHEEL DIAMETER	N° 1 x Ø 80 mm
TRACTION	ELECTRIC
WEIGHT WITHOUT BATTERIES	95 kg
BATTERIES ROOM (LxLxH)	360 x 330 x 260 mm
ELECTRIC CHARACTERISTICS	
VOLTAGE	24 V (2x12V –140 Amp/h)
WASHING BRUSHES REDUCTION GEAR	N°1 x 24V 650W
TRACTION ENGINE	24 V - 130 W
SUCTION ENGINE	24 V - 800 W
FUNCTIONING	
SQUEEGEE UP	BY MEANS OF A LEVER
BRUSHES UP	BY MEANS OF A PEDAL
PERFORMANCES	
DEPRESSURE	2200 mm/H ₂ O - 23 KPa
FORWARDGEAR SPEED	0 ÷ 4 km/h
MAX. SLOPE	5%
CLEANING	2100 m ² /h
AUTONOMY	5 h
ECOLOGICAL FEATURES	
NOISE AT OPERATOR'S SEAT	< 72 DECIBEL
VIBRATIONS AT OPERATOR'S ARM	< 2.5 m/sec ²



The above mentioned characteristics are not binding for the manufacturer; they can be changed without any notice . ING.O.FIORENTINI Co. is always at disposal for any information (par.7.1.).

MEASUREMENT UNIT CONVERSION

Lenght	1 inch = 1" = 25,4 mm	Power	1 kW = 1,36 CV = 1,34 BHP
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Temperature	$T (K) = t (°C) + 273$ / $t (°F) = 1,8 t (°C) + 32$	Pressure	1 bar = 100 kPa = 14,5 psi
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3. SICUREZZA

3.1. RIGHT USE



This machine is a scrubbing machine and it has been designed and built to clean in an industrial place. It can work on flat surfaces or on sloping surfaces not higher than 5% and with a speed not higher than 1 km/h while the machine is reversing.

3.2. WRONG USE



- The machine cannot be driven by non-authorized personnel;*
- ⌚ *The machine cannot wash sloping surfaces whose gradient is higher than 5% or surfaces with holes;*
- ⌚ *The machine cannot reverse with a speed higher than 1 km/h;*
- ⌚ *The machine cannot be used in places with dangerous substances and in particular with explosive atmospheres or with a bad microclimate;*
- ⌚ *The machine cannot clean surfaces with inflammable products;*
- ⌚ *The machine cannot be used as a means of transport for people or other means of transport;*
- ⌚ *The protection devices of the machine cannot be modified or tampered;*
- ⌚ *Batteries must be recharged in a fanned room;*
- ⌚ *The operator have always to respect safety rules;*
- ⌚ *The operator cannot use equipments or devices that can create problems to the machine working;*
- ⌚ *The machine components cannot be modified without FIORENTINI's authorization;*
- ⌚ *The operator cannot use acids that can damage the machine;*
- ⊙ *The operator has always to respect the rules written in the user manual.*



Please read carefully and do not cover the labels stuck on the machine. FIORENTINI S.r.l. is not responsible for a wrong use of the machine (see § 3.2.)

3.3. SUGGESTED EQUIPMENT

In order to use the machine in a proper way, we suggest to use the FIORENTINI's equipment and original spare parts.

FIORENTINI S.r.l. Technical Dept. is always at your disposal to design components or parts for a particular use of machine as requested by the customer.

3.4. OPERATOR'S QUALIFY

The scheme below summarizes the operator qualify requested for each kind of operation.

OPERATION	OPERATOR'S QUALIFY
Driving/control of the machine	Trained operator
Installation/ disinstallation	Fiorentini technician
Mechanical parts maintenance	Fiorentini technician
Electric parts maintenance	Fiorentini technician
Cleaning maintenance	Trained operator
Dismantling and demolition	Fiorentini technician

FIORENTINI S.r.l. suggests to train the operator before using the machine. The operator also must be trained about safety rules and carefully read this manual.



FIORENTINI S.r.l. is not responsible for any possible damage to people and/or things caused by the non-observance of the instructions dealt within this manual.

3.5. SAFETY AND WARNING DEVICES



- *It is absolutely forbidden to tamper or disconnect safety and warning devices while the machine is working;*
- *It is important to check periodically safety and warning devices (see § 5.1.).*

Brushes protection	ROLLER DELUXE55 is equipped with two rotating brushes made of nylon. The machine cannot reach dangerous areas thanks to fixed steel protections set up on each brush. These cases can be only willingly removed.
	

3.6 SAFETY SYSTEMS

The machine is equipped with the following safety systems:

- ⌚ **Socket** (picture 4.5), the same socket used for the battery charger. In case of emergency, this socket must be taken away from the plug by means of its handle.
The operator must be trained about safety rules. Do never restore this safety system before the problem has been sorted out. If it is necessary ask for the technician help.
- ⌚ **Anti-squashing system:** this machine is equipped with a special safety system which avoids the operator's squashing. When the machine is running backwards, a lever (picture nr. 3.2) may come in contact with the operator's stomach and consequently starts the machine forwards.



Picture nr. 3.1



Picture nr. 3.2

3.8. OTHER DANGERS

FIORENTINI S.r.l. analyzes – starting from the design of the machine - all the dangers that can occur while the machine is operating in order to prevent or at least low the operator's accidents. Thanks to a series of signals on the machine the operator can avoid many risks that can occur.

SQUASHING DANGER

This danger may occur:

- During the washing rolls regulation;
- During the squeegee regulation;
- During the replacement of the rolls regulation belt;

I Whilst regulating the side brushes, the ignition key must be kept away from the dashboard in order to avoid the casual starting of the machine.



Special labels sticked on the cartes of the brushes or on the recovery tank prevent dangers to the operator (see § 3.7.).

CRUSHING**DANGER**

This kind of danger may occur:

- During the normal use of the machine, if the slopes are higher than the ones specified in § 3.2 or when the surfaces show holes.



Do not use the machine to wash sloping surfaces higher than 7% or surfaces with holes or depressions which might compromise the stability of the machine.

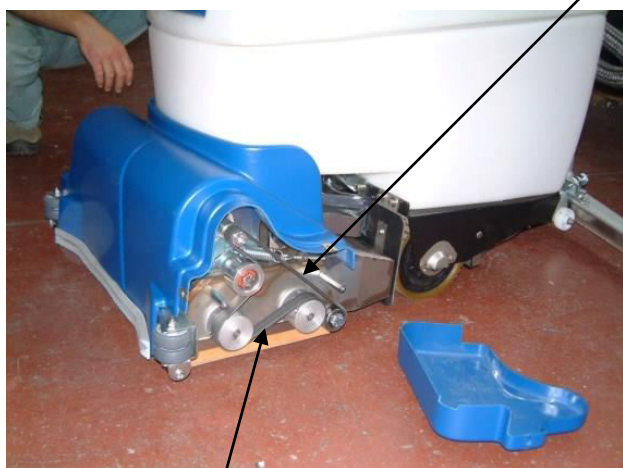


*FIORENTINI is not responsible for accidents occurred to people or things provoked by a wrong use of the machine, i.e. using the machine on surfaces which can compromise its stability.
The purchaser must stick proper labels on the machine to show the operator the right use of the scrubber.*

3.9. SAFETY SIGNALS

DANGERS		Dangers' signals are triangular with black pictures on a yellow background
PROHIBITIONS		Prohibitions' signals are round with black pictures and a red stripe

	What is it?	This signal forbids to remove the protection of pieces in movement.
	What to do	During the installation or the maintenance make sure that the ignition key is not in the dashboard before removing the mobile protections. While the machine is operating make sure that all covers are well fixed.



	What is it?	Squashing danger: it can be due to parts in movement of the machine.
	What to do	During the installation or the maintenance make sure that the ignition key is not in the dashboard before removing the mobile protections.



The purchaser must replace danger signals on the machine if they are deteriorated. It is absolutely forbidden to remove or temper danger signals.



Explosion danger: it may occur while recharging the batteries because

	What is it?	of hydrogen spread.
	What to do	During the batteries recharge, please place the machine under a suction chimney or in a ventilated area and keep it away from heat and corrosive substances.



	What is it	Squashing danger: it can be provoked by the recovery tank overturn.
	What to do	During the batteries water filling, pay attention to the recovery tank casual fall.



The purchaser must replace danger signals on the machine if they are damaged. It is absolutely forbidden to remove or temper danger signals.

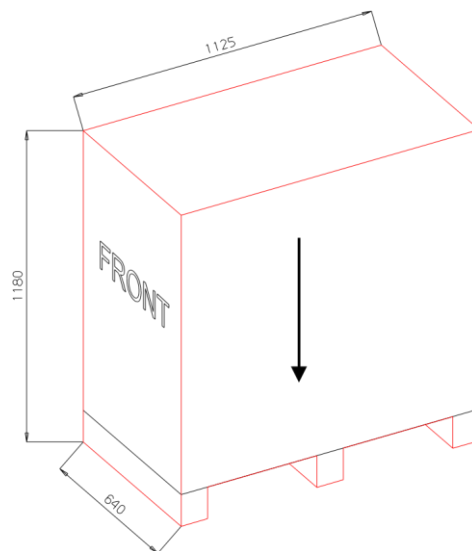
4. STARTING AND USE INSTRUCTIONS

4.1. TRANSPORT AND HANDLING

The machine is delivered to the purchaser in a proper package (see picture 4.1 below). A black arrow on the package indicates the barycentre. This arrow must be in the middle of the elevator or transpallet forks. The package must be carefully handled. Do not place one package on another one. If agreed with the purchaser, the machine can be delivered without package, placed on a pallet and fixed by means of straps.



*The purchaser must make sure that the machine has not been damaged during the transport and that all papers are on the machine. Otherwise, the purchaser must immediately contact FIORENTINI in order to sort out the problem.
The purchaser is responsible for the transport of the machine if not differently agreed with FIORENTINI.*



Picture nr. 4.1

The machine must be handled with proper devices as stated in the scheme below. Please, make sure that the black arrow on the package are always in the middle of the elevator forks or the sling bands.

PACKAGE	HANDLING EQUIPMENT	POSITION
Paperboard or plywood box on a pallet	Fork elevator	Nr. 4.2

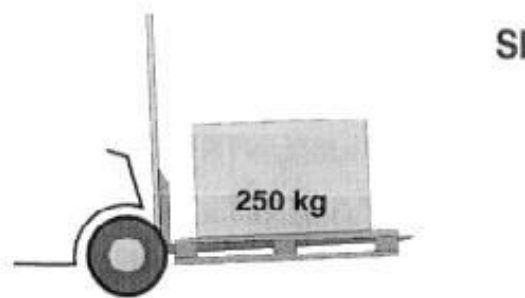


The bands used for lifting the machine up must have the same loading capacity as the machine load. Handling operations must be done without causing a loss of stability of the machine. Otherwise, the machine can be damaged or the operator can be in danger.



FIORENTINI suggest to use authorized personnel (see § 2.3.) to handle the machine.

LOADING SYSTEM



Picture nr. 4.2

4.2. STORAGE

The machine must be stored in a closed and dry place if not immediately installed in order to keep every part safe.

Relative humidity must be lower than 80% and the storage temperature must be between $3^{\circ}\text{C} \leq t \leq +45^{\circ}\text{C}$.

4.3. HOW TO UNPACK THE MACHINE

- ⌚ Cut the straps paying attention to the back spring;
- ⌚ Remove the staples that join the paperboard and the pallet;
- ⌚ If the package is made of plywood, please remove the staples from each side; ⌚ Cut the straps that fix the machine; ⌚ Lay the machine on the floor.

4.5. INSTALLATION



Installation must be carried out by authorized personnel after reading this manual.

4.5.1 BATTERIES INSTALLATION

- ⌚ Lift the recovery tank up in order to reach the batteries room (see detail 1 in picture 4.4);
- ⌚ Install the batteries in their room (picture 4.4.) and make sure that the cases of the batteries are not broken;
- ⌚ Never fill distilled water after having recharged the batteries.
- ⌚ Clean the surfaces for the connections;
- ⌚ The operator can easily lift the batteries up by means of handles.



Picture nr. 4.4

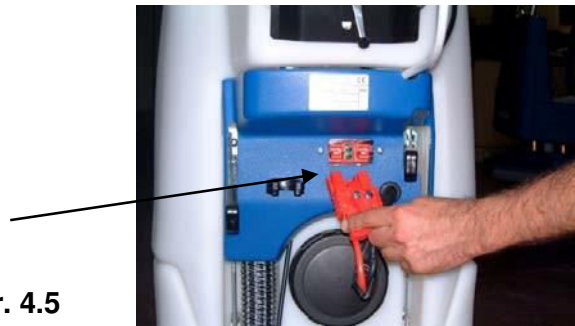
4.5.2 BATTERY CHARGER INSTALLATION

Batteries must be recharged in a place equipped with a proper suction system of gases spread during this operation. Otherwise, batteries must be charged in a ventilated and dry place far from heat sources and corrosive substances.

Protect the electric network with a delayed switch or with a fuse whose capacity is higher than the battery charger maximum input.

Control the battery outlet polarity.

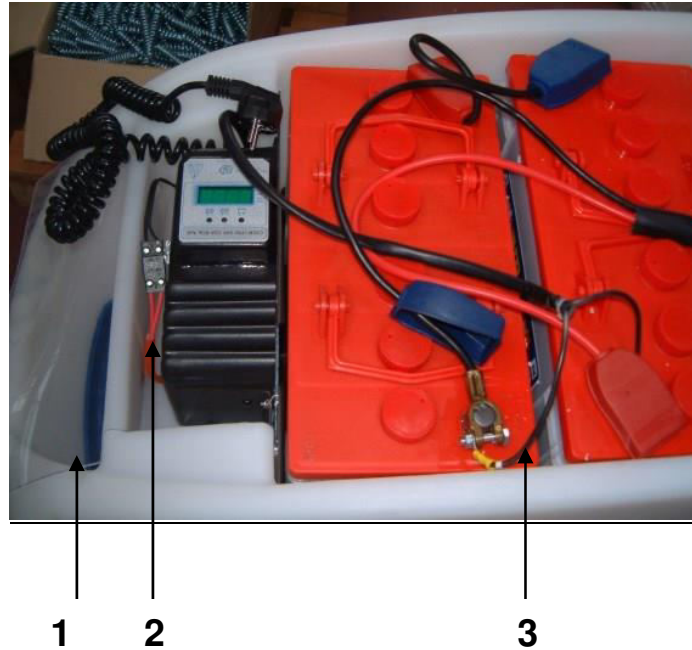
Connect the battery charger to the machine socket



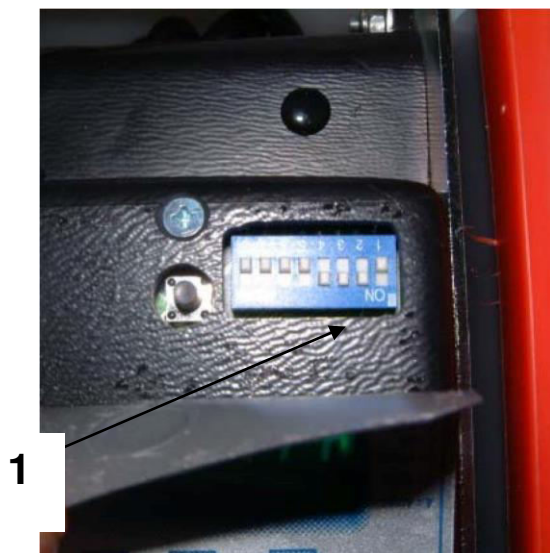
Picture nr. 4.5

This machine is equipped with a battery charger inside the battery cover case. Please, follow the instructions above for the batteries charge and connect the cable to the mains.

Battery charter installation: in the front side of the tank there is a special room for the battery charger. Install the battery charger with its support and its splash guard (see detail 1 in picture nr. 4.51) and fix it with two M6 bolts. Then the operator has to connect both the positive and the negative cables of the battery (see detail 3 in picture 4.51). Strip and divide the two cables inside the red sheath placed between the tank and the battery tank (see detail 2 in picture 4.51). Connect these cables to the supplied plug in order to connect the battery charger. Now the operator can connect the battery charger to the mains.



Picture nr. 4.51



CARICA BATTERIE 24/12 GEL

OFF							
ON							
	1	2	3	4	5	6	7
							8

CARICA BATTERIE 24/12 ACIDO

OFF							
ON							
	1	2	3	4	5	6	7
							8

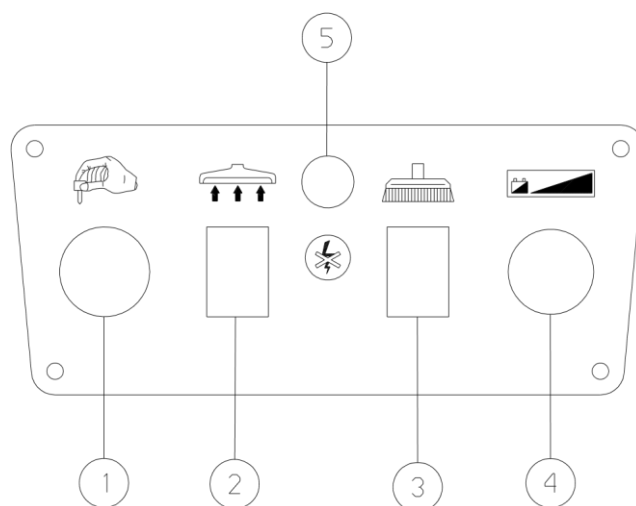
Picture nr. 4.52

Gel and acid batteries charge: the operator has to lift the sticker on the battery charger up (see detail 1 in picture nr. 4.52) and change the connection as stated in the schemes above.

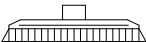
4.6. CONTROL DEVICES

4.6.1. DASHBOARD

The dashboard is made of a series of switches that activate or disactivate all the machine functions. The function of each switch is shown by a picture. Picture 4.6. shows the dashboard of the machine and the switches function is explained in the scheme in the following page.



Picture nr. 4.6

Nr.	BUTTON	FUNCTION
1		<u>KEY SWITCH</u>
2		<u>SUCTION ON</u>
3		<u>WASHING GROUP ON</u>

4		<u>BATTERIES STATUS INDICATOR</u>
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4.7. FUNCTIONING

The operator, thanks to his/her experience, has to choose the right kind of brush and detergent for the surfaces that has to be washed and to decide if the floor needs a second washing. Follow these instructions for a correct washing:

1. press the brushes motor switch; 2. press the solution solenoid valve switch;
3. press the suction switch.

By means of the accelerator pedal the washing brushes and the suction motor are activated. On the contrary, both the washing brushes and the suction motor are disactivated after a few seconds if the operator leaves this pedal. Before the surface is completely dry, the operator must switch the solution solenoid valve off because this is not activated/disactivated by the accelerator pedal. The operator has to do a second washing if the surface is particularly dirty:

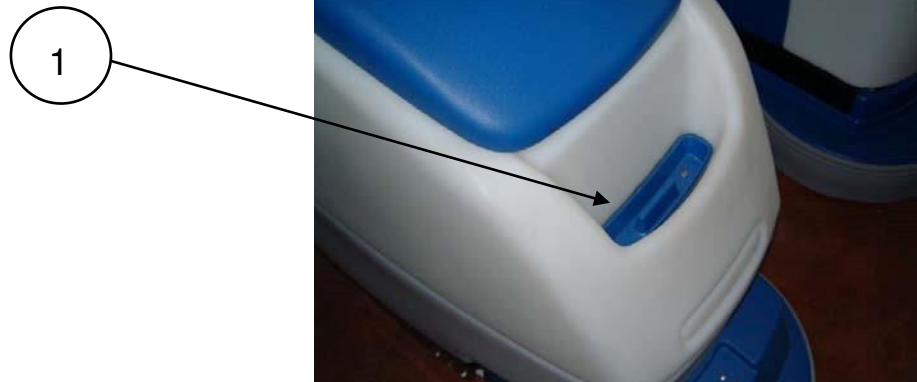
1. wash the surface with the squeegee up and the brushes down;
2. activate the brushes;
3. press the solution solenoid valve switch;
4. leave the solution on the surface to dissolve the dirt;
5. do a second washing with brushes and squeegee down, the suction activated and the solution solenoid valve open.



Before any operation, make sure that all protections are well fixed.

4.7.1 PREPARING AND STARTING THE MACHINE

If the machine is connected with the battery charger, the operator must firstly disconnect the battery charger plug from the batteries one and connect the batteries plug with the power supply plug (see picture 4.5.). Secondly, the operator must fill water lifting the recovery tank up and turning the cap (see detail nr. 1 in picture nr. 4.7.). Now the operator can seat on the machine, start it and wash the surface.

**Picture nr. 4.7**

4.7.2 CHOOSING THE RIGHT DETERGENT

Choosing the right detergent is very important for a perfect cleaning. A too strong detergent could damage the surface. A good quality detergent has to produce little foam. Alternatively, the operator can add an antifoaming additive or 50 cc of wine vinaigre in the recovery tank in order to avoid the suction motor damage.



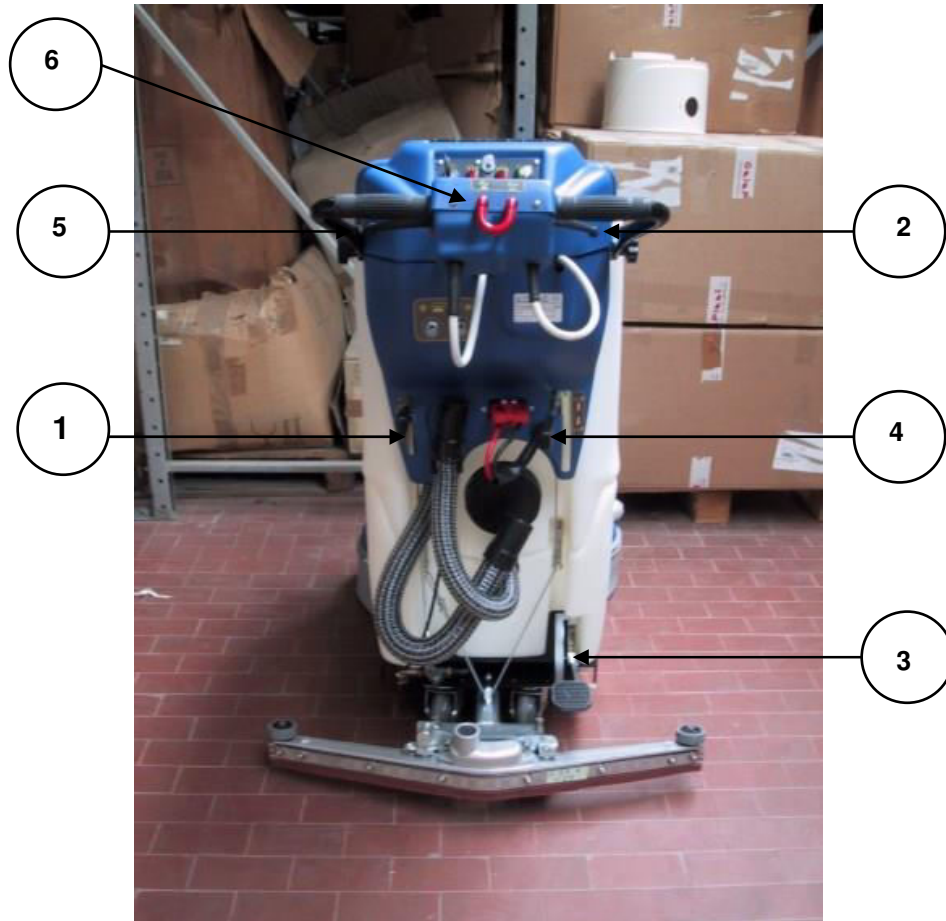
Make sure that the detergent is suitable for the dirty surface. FIORENTINI S.r.l. is not responsible for damages provoked by too aggressive detergents.

4.7.3 DRIVING HANDLEBAR REGULATION

By means of a knob (see detail 1 in picture 4.8), the operator can regulate the driving handlebar inclination in order to have a driving position which fits his/her body.



Picture nr. 4.8



4.7.4 LEVERS FUNCTIONING

This machine is equipped with several levers and pedals::

- ⌚ Accelerator lever (see detail 2 in picture 4.9). Forward gear: the operator has to press the 'u' switch (see detail 6 in picture 4.9) towards the machine and pull the accelerator lever. Reverse gear: the operator has to pull the 'u' switch and lever nr. 3. This lever also works as an anti-squashing device.



The accelerator pedal activates all the machine moving parts. This is why the brushes and the suction motor are activated pressing the accelerator pedal and their switches on the dashboard. On the contrary, the accelerator pedal can't activate the solution solenoid valve, which has to be opened and closed by the operator.

- ⌚ Service/parking brake (see detail 5 in picture 4.8): it has to slow and stop the machine. The operator has to pull the brake lever until it is completely blocked. Then, the operator has to release the brake lever and the red device.
- ⌚ Squeegee up lever (see detail 4 in picture nr. 4.9): the operator has to pull this lever up or down if he/she needs to lift the squeegee up or down.
- ⌚ Rollers pedal (see detail 3 in picture nr. 4.9): the rollers lift up by pressing the pedal. Do the opposite instructions in order to set the rollers in their original position.
- ⌚ Water regulation lever (see detail 1 in picture 4.9): the operator has to lift the lever up or down in order to regulate the water flow.

4.7.5 DETERGENT CONTROL

During the washing the operator can control the detergent quantity by means of a cock, which is at the bottom of the machine on the left inside the protection rubber (see detail nr. 1 in picture 4.10.).

Picture nr. 4.10



Important: please, make sure that the ignition key is not in the lock before any water regulation.

4.7.6 SQUEEGEE ADJUSTMENT

The squeegee has to be well regulated in order to have a perfect dry system. This kind of squeegee can perfectly suck water, which flows into the suction pipe, but it must be parallel to the surface.

- ⌚ Remove the ignition key from the dashboard in order to avoid the casual starting of the machine.

Picture nr. 4.11



Make sure that the two wheels of the squeegee are well regulated in order to keep both its blades parallel to the floor.

⌚ B
y
me

ans of the bolts (see detail nr. 1 in picture nr. 4.11.) regulate the squeegee. The best squeegee pressure is reached when the corner of its blade is in contact with the floor and their inclination is between 45° and 60°.

4.7.7 WATER DISCHARGE

This scrubber machine is equipped with two pipes for water discharge (picture 4.15.):

- ⌚ A pipe for the recovery tank discharge (see detail nr. 1 in picture nr. 4.15.);
- ⌚ A suction pipe (see detail nr. 1 in picture nr. 4.15.);

If you need to discharge water from the tanks, you have to place the machine on a dump well, release the pipe of the tank and open the rubber cap at the end of the pipe itself.

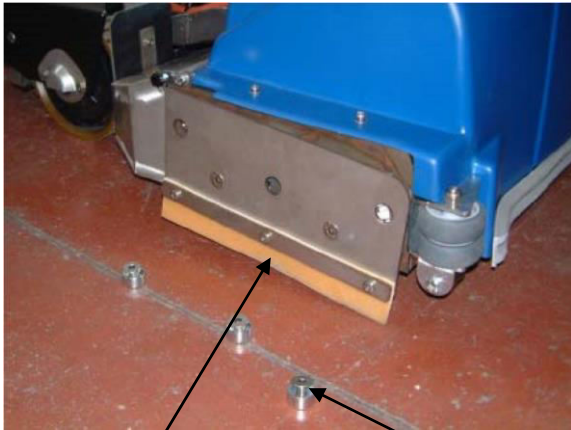


Picture nr. 4.15

4.7.9 BRUSHES REPLACEMENT

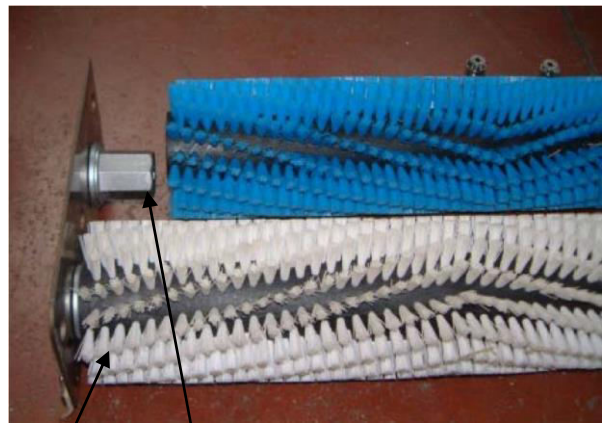
The operator has to follow the instructions below to replace the brushes:

- ⌚ Take the ignition key away from the dashboard in order to avoid a casual starting of the machine;
- ⌚ Remove the yellow cap (see detail 1 in picture 4.12);
- ⌚ Turn the brush until the pin (see detail 2 in picture 4.13) in the hole is visible. Pull the pin and then unloose and remove the brushes by means of a slight pressure downwards.
- ⌚ Setting a new brush up: the brushes hexagon has to be concentric to the attachment flange (see detail 4 in picture nr. 4.13). By means of a slight pressure upwards set the new brush up.
- ⌚ Set the brushes cases up again after having replaced the brushes.



1

Picture nr. 4.12



3

4

Picture nr. 4.13



IMPORTANT: the brushes hexagon has to be concentric to the attachment flange.

4.7.9.1 RECOVERY TANK CLEANING

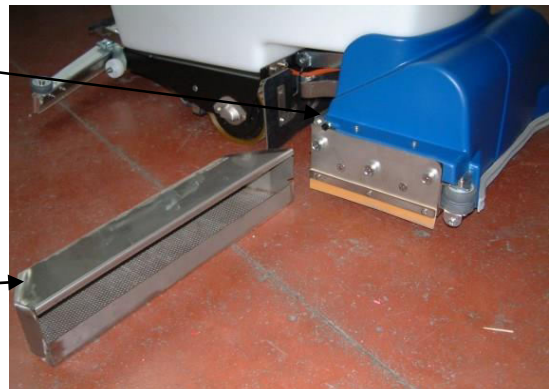
- ⌚ Take the ignition key away from the dashboard in order to avoid a casual starting of the machine;
- ⌚ Lift the hook of the recovery tank in order to unloose the tank (see detail 1 in picture 4.17);
- ⌚ Pull the recovery tank off (see detail 2 in picture 4.17);
- ⌚ Empty and clean the recovery tank;
- ⌚ Do now the opposite instructions.
- ⌚ Compiere ora le operazioni inverse.

Picture nr. 4.17

Important: before starting the machine again make sure that the hook of the recovery tank is well fixed.

1

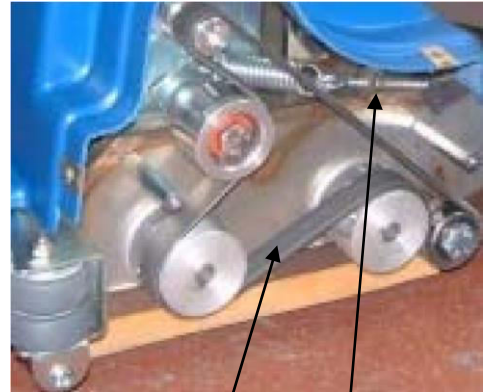
2



Before starting the machine again, please make sure that the protection cases are well set up.

4.7.9.2 BRUSHES BELT REGULATION AND REPLACEMENT

- ⌚ Take the ignition key away from the dashboard in order to avoid a casual starting of the machine;
- ⌚ Unscrew the four screws and remove the plastic case (see detail 1 in picture 4.18);
- ⌚ Tighten the nut of the belt (see detail 2 in picture 4.18) fixed on the eye in order to increase the spring strength which regulates the belt (see detail 3 in picture 4.18);
- ⌚ Unloose the nut mentioned above in order to remove and replace the brushes belt;
- ⌚ Tighten the nut so that the brushes belt has the same strenght as before; ⌚ Set the brushes case up again by means of the four screws.



1

3

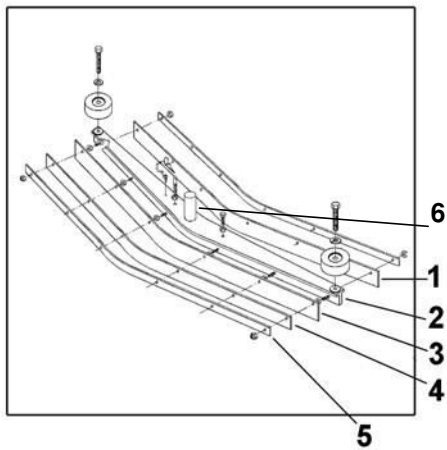
2

4.7.10 SQUEEGEE BLADES REPLACEMENT

Squeegee blades must be replaced when their hedges are worn. A perfect hedge allows a perfect dry (picture 4.19).

Follow these instructions to replace the squeegee blades:

- ⌚ Remove the squeegee from the machine and lay it on a table;
- ⌚ Remove the internal and external knobs, the steel strips and the worn blades;
- ⌚ Set the new blades up, tighten the knobs and regulate the squeegee



G AND USE INSTRUCTION

ROLLER DELUXE 55

Picture nr. 4.19

5. MAINTENANCE

5.1. PERIODICAL MAINTENANCE

A periodical maintenance is very important.

Please write down in the format you find below all the interventions done on the machine.



- *Trained personnel only can service the machine and especially electric and electromechanical parts by means of suitable tools and equipments.*
- *Make reference to FIORENTINI S.r.l. only for service and spare parts (§ 7.1. and § 7.2.).*

OPERATION	INTERVENTION		HOW OFTEN
Cleaning	Clean the recovery tank and the oil filter of the suction motor		Every day
		• Do not use corrosive substances. a Do not use bolts of water.	
	• Check the suction pipes and the squeegee		Every week
Checks	⌚ Check the rubber suction blades of the squeegee ⌚ Check the water battery level		Every 15 days
	Check the filter of the clean water tank		Every month
	Check and regulate the breaking system		Every 3 months
	Check the connection of the battery cables		Every 6 months
	Check the brushes of each motor		Every year
	⌚ Check the safety devices Check the electric system		Every year

5.2 BATTERIES MAINTENANCE

The operator has to check the batteries charge when the machine is on duty by means of the indicator on the dashboard, which shows:

- ⌚ Green light: charged battery
- ⌚ Yellow light: slightly charged battery
- ⌚ Red light: uncharged battery

The operator must keep the battery room open during the batteries recharge. Moreover:

- ⌚ *It is forbidden to use flames and/or to smoke near the batteries;*
- ⌚ *Pay attention to the battery acid;*
- ⌚ *Do not develop sparks near the batteries;*
- ⌚ *Pay attention to the batteries gazes, which can burst; ⌚ Do not invert battery polarities.*

5.2.1 HYDROMETRY

In order to check the batteries hydrometry the operator has to follow the instructions below:

- ⌚ By means of a hydrometre draw a small quantity of electrolyte so that the floater reaches the surface;
- ⌚ Make sure that the floater inside the hydrometre is not blocked;
- ⌚ For a new measurement, after having filled the batteries with distilled water, the operator has to wait until the liquid inside each battery becomes homogeneous.

5.2.2 WATER FILLING UP

- ⌚ Fill distilled water up in each battery cell before the recharge. The liquid inside the batteries has to be of 6 mm. over the plates;
- ⌚ The operator has to repeat the same operation every time the level decreases (every week).

5.2.3 CHARGE LIMITS

It is not necessary to recharge the batteries if the hydrometry, after a work day, is not under 1,24 (28 Bè). The highest suggested temperature is 45°C. If the electrolyte temperature increases more than 10/12 °C compared to the outside temperature, the batteries can be overcharged.

5.2.4 OFF DUTY OR INACTIVE BATTERIES

Inactive batteries loses their automatically their charge. If batteries do not continually work, the operator has to:

- ⌚ Charge the batteries once a month with a 'final' stream intensity until gas is spread and the batteries voltage and weight are constant for 3-4 hours. This operation has to be done even if the absolute weight is high;
- ⌚ Keep the batteries in a dry room.

5.2.5 BATTERY CHARGER TECHNICAL FEATURES

TENSION	V 12
CAPACITY	100 A/h
WEIGHT	30 kg
DIMENSIONS (LxLxH)	29x17x22,5 cm

The battery charger has to show the features listed in the scheme below:

IN	V 230, Hz 50, A5
OUT	V 24, A12

This kind of battery
batteries of a different brand.

charger can charge





See § 2.3 TECHNICAL DATA for the batteries technical features.

5.2.6 BATTERIES DISPOSAL

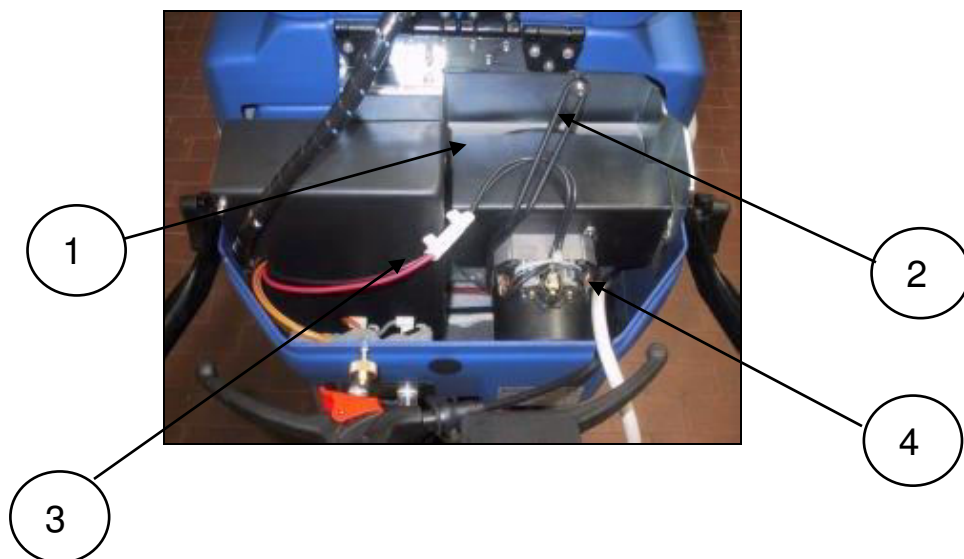
Old batteries are toxic wastes and they have to be thrown in a suitable and authorized place for the batteries disposal. For a short storage, old batteries must be located in an authorized room. Moreover, they must be stored in sealed plastic tanks, whose capacity is not lower than the electrolyte.

5.3 SUCTION MOTOR MAINTENANCE

The suction motor has to be checked up and cleaned. Every six months motor brushes have to be checked and replaced if it is necessary.

To maintain the suction motor please follow the instructions below:

- ⌚ Take the ignition key off the dashboard and remove the plate that covers the suction motor (see detail 4 in picture 5.1);
- ⌚ Remove the splash guard plate in front of the motor (see detail 4 in picture 5.1);
- ⌚ Remove the soundproofing plate that surrounds the motor (see detail 5 in picture nr. 5.1);
- ⌚ by means of the lever (see detail 3 in picture 5.1) remove the motor and disconnect the plug (see detail 2 in picture nr. 5.1);
- ⌚ Remove the sponge filter under the motor, wash it and put it again in its position;
- ⌚ Check the motor fan through the hole in the front side of the suction motor;
- ⌚ Remove the plastic cover, loosen the screws and both the brushes supports and check the motor brushes (see detail 2 in picture 5.1);
- ⌚ Do now the opposite operations to set everything up again.



Picture nr. 5.1

5.4 ELECTRIC EQUIPMENT CONTROL

It is very important to check the electric system up every two years. Disconnected cables or burnt cables must be immediately replaced.



*Interventions on the electric system must be carried out by a trained technician.
Every kind of intervention not explained in the operator manual must be carried out by FIORENTINI's technicians.*

5.5 Tests to be carried out

	HOW OFTEN	OPERATOR
INSPECTION		
Safety devices	Every 2 years	Trained technician
Electric system	Every 2 years	FIORENTINI technician
Braking system	Every 3 months	Trained technician
Complete check up	Every 5 years	FIORENTINI technician
MAINTENANCE		
Recovery tank cleaning	Every day	Operator
Clean water tank	Every month	Operator
Suction motor filter	Every day	Operator
Suction pipes cleaning	Every week	Operator
Squeegee cleaning	Every week	Operator
Squeegee blades	Every week	Operator
Battery water level	Every week	Operator
Battery cables fixing	Every 6 months	Trained technician
Brushes in each motor	Every year	Trained technician

5.6. MAINTENANCE REGISTER

<i>DATE</i>	<i>OPERATOR</i>	<i>INTERVENTION</i>	<i>SIGNATURE</i>

6. SERVICE

6.1. SERVICE ADDRESSES

Do not hesitate to contact FIORENTINI S.r.l. service for any kind of information or request.

ING. O. FIORENTINI s.r.l.

“THE BEST IN FLOOR MACHINES”

FILIALI:

20132 MILANO – Fax. 02/2592779

Via Palmanova 211/a Tel. 02/27207783 - 2564810

00155 ROMA – Fax. 06/22754075

Via Carlo Carrà 13 – Tel. 06/22754040-2275060

STABILIMENTO:

50030 PIANCALDOLI (FI) – Fax. 055/817144

Loc. Rombola – Tel. 055/8173610

Most of the technical problems can be sorted out with short intervention. This is why FIORENTINI S.r.l. suggest to read carefully this manual before using the machine. On the contrary, if the customer needs a FIORENTINI technician, please inform us about the problem in order to sort it out with the right material.

6.2 CLAIM REPORT

Please, fill in the format below if the machine shows particular problems.

Operator:

Company:

Operator's name:

Role:

Date:

Signature:

Machine description:

Machine: **ROLLER DELUXE 55**

Type:

Purchase date:

S.N.:

Warranty: ☐ YES ☐ NO

Work hours:

Where does the machine
normally work?

Fault:

Code of the defected

Description: component:

Fault:

Fault short description:

- ☐ Mechanical component
- ☐ Wrong functioning
- ☐ Electric system
- ☐ Engine
- ☐ Missing component
- ☐ Extremely noisy
- ☐ Water leak
- ☐ Other

Customer's suggestion:

Mat. n.

Serial no.

Nr. de serie

Data di spedizione

Date of shipment

Date de spedition

Distributed by:

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